

1     **WHAT IS CLAIMED IS:**

2             1. A drawer rail having an auto-returning device comprising:

3                 a rail assembly composed of an outer track and an inner track;

4                 a driving block formed on the outer track;

5                 a base mounted on the inner track and having a front face, a rear face, a top

6     edge, a bottom edge, a first end, a second end opposite to the first end, wherein

7     the base has

8                     a spring recess defined in the front face near the bottom edge at the

9     first end;

10                    a block recess defined in the front face near the bottom edge at the

11   second end to communicate with the spring recess;

12                    an elongated through hole defined in the block recess to penetrate

13   the base; and

14                    a positioning cutout defined in the bottom edge beside the block

15   recess and having a stub notch defined in a bottom wall of the positioning cutout;

16                    a sliding block movably mounted inside the block recess of the base and

17   having a front face, a rear face, a top edge, a bottom edge, a first end, and a

18   second end opposite to the first end, wherein the sliding block further has:

19                    an extending portion extending from the rear face at the top edge to

20   penetrate the elongated through hole and having a limiting cutout defined in a

21   top face of the protruding portion for receiving the driving block;

22                    a spring post formed on the rear face near the bottom edge at the

23   second end to insert into the spring recess; and

24                    a stub formed on the rear face near the bottom edge at the first end

1 to operationally engage with the stub notch on the base when the sliding block  
2 biases; and

3 a spring accommodated inside the spring recess and having an immovable  
4 end attached to the first end of the base and a free end attached to the spring post  
5 on the sliding block.

6 2. The drawer rail having an auto-returning device as claimed in claim 1,  
7 wherein the base further has a bumper formed on an inner wall inside the block  
8 recess.

9 3. The drawer rail having an auto-returning device as claimed in claim 2,  
10 wherein the base further has two wedges respectively formed on the front face at  
11 the first end and the second end of the base; and

12 the inner track further has two mortises defined in the inner track to  
13 respectively engage with the two wedges on the base.

14 4. The drawer rail having an auto-returning device as claimed in claim 3,  
15 wherein the spring has a neck formed on the immovable end;

16 the base further has two opposite inner sidewalls and a pair of cone-shaped  
17 nubs respectively formed on the two opposite inner sidewalls to clamp the neck  
18 of the spring; and

19 the spring has a hook formed on the free end to engage with the spring post  
20 on the sliding block.

21 5. The drawer rail having an auto-returning device as claimed in claim 4,  
22 wherein the sliding block further has

23 an inclined face formed on the extending portion at the first end;

24 a guard wall formed on the extending portion at the top edge of the sliding

1 block; and

2 a slit defined longitudinally in the guard wall to engage with wall of the

3 elongated through hole to keep the sliding block stable inside the block recess.

4 6. The drawer rail having an auto-returning device as claimed in claim 5,

5 wherein the stub has an outer periphery and a flat face defined in the outer

6 periphery facing to the second end of the sliding block; and

7 the spring post further has an outer periphery and a blocking pin formed on

8 the outer periphery and perpendicular to the spring post.

9 7. A drawer rail having an auto-returning device comprising:

10 a rail assembly composed of an outer track and an inner track, wherein the

11 outer track has a tenon;

12 a driving block formed on the inner track;

13 a base mounted on the outer track and having a front face, a rear face, a top

14 edge, a bottom edge, a first end, a second end opposite to the first end, wherein

15 the base has

16 a spring recess defined in the front face near the bottom edge at the

17 first end;

18 a block recess defined in the front face near the bottom edge at the

19 second end to communicate with the spring recess;

20 an elongated through hole defined in the block recess to penetrate

21 the base;

22 a positioning cutout defined in the bottom edge beside the block

23 recess and having stub notch defined in a bottom wall of the positioning cutout;

24 a pair of wings extending outward from the first end, wherein each

1 one of the pair of wings has a distal end and a cylinder nub formed at the distal  
2 end and clamped between the inner track and the outer track for positioning; and  
3 a mortise formed at the second end of the base and the outer track to  
4 engage with the tenon on the outer track;  
5 a sliding block movably mounted inside the block recess of the base and  
6 having a front face, a rear face, a top edge, a bottom edge, a first end, and a  
7 second end opposite to the first end, wherein the sliding block further has:  
8 an extending portion extending from the rear face at the top edge to  
9 penetrate the elongated through hole and having a limiting cutout defined in a  
10 top face of the protruding portion for receiving the driving block;  
11 a spring post formed on the rear face near the bottom edge at the  
12 second end to insert into the spring recess; and  
13 a stub formed on the rear face near the bottom edge at the first end  
14 to operationally engage with the stub notch on the base when the sliding block  
15 biases; and  
16 a spring accommodated inside the spring recess and having an immovable  
17 end attached to the first end of the base and a free end attached to the spring post  
18 on the sliding block.

19 8. The drawer rail having an auto-returning device as claimed in claim 7,  
20 wherein the base further has a bumper formed on an inner wall inside the block  
21 recess.

22 9. The drawer rail having an auto-returning device as claimed in claim 8,  
23 wherein the base further has two wedges respectively formed on the front face at  
24 the first end and the second end of the base; and

1           the inner track further has two mortises defined in the inner track to  
2   respectively engage with the two wedges on the base.

3           10. The drawer rail having an auto-returning device as claimed in claim 9,  
4   wherein the spring has a neck formed on the immovable end;

5           the base further has two opposite inner sidewalls and a pair of cone-shaped  
6   nubs respectively formed on the two opposite inner sidewalls to clamp the neck  
7   of the spring; and

8           the spring has a hook formed on the free end to engage with the spring post  
9   on the sliding block.

10          11. The drawer rail having an auto-returning device as claimed in claim 10,  
11   wherein the sliding block further has

12          an inclined face formed on the extending portion at the first end;

13          a guard wall formed on the extending portion at the top edge of the sliding  
14   block; and

15          a slit defined longitudinally in the guard wall to engage with the wall of the  
16   elongated through hole to keep the sliding block stable inside the block recess.

17          12. The drawer rail having an auto-returning device as claimed in claim 11,  
18   wherein the stub has an outer periphery and a flat face defined in the outer  
19   periphery facing to the second end of the sliding block; and

20          the spring post further has an outer periphery and a blocking pin formed on  
21   the outer periphery and perpendicular to the spring post.